

New research explores the impact of the COVID-19 pandemic on nuclear security

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King's College London academics have published new research exploring how the UK's civil nuclear sector has responded to challenges posed by COVID-19.

The study, from the Nuclear Security Culture Programme in the Centre for Science and Security Studies (CSSS), King's College London, and run in partnership with industry and supported, identifies a series of lessons learnt in maintaining nuclear security. It also provides recommendations for managing the continuing impact of the pandemic and preparing for future crises.

The COVID-19 pandemic has had a significant impact on the nuclear sector and its critical national infrastructure. Challenges have included an increase in worker absenteeism due to infections and enforced isolation, constraints on numbers of staff at facilities, physical restrictions for those onsite to minimize disease transmission, and a large-scale transition to remote working.

This has complicated the delivery of security, in an environment where threats are continually evolving, both from malicious actors taking advantage of perceived weaknesses, and as a by-product of the broader uncertainty generated by the pandemic.

The [nuclear industry](#) therefore had to adapt to changing security risks. In order to generate insights into successful adaptations, the researchers conducted semi-structured interviews with practitioners from eight different UK nuclear organizations spanning government, the Office for Nuclear Regulation (ONR), transport, nuclear research and energy production. The interviews were conducted over a period of six months from early- to mid-2021.

The study's key findings emphasize the importance of developing information gathering systems to respond to government decision-making on risk and security. Although, these must be carefully constructed so as not to place unnecessary burden on nuclear operators. Organizations should also regularly update their internal risk registers to account for new emerging threats and vulnerabilities. In the context of

COVID-19 relatively few nuclear companies had a pandemic scenario within their top-10 risks, despite its clear prominence as a high-probability high-consequence event in the UK's national risk register.

The study further calls for an outcome focused regulatory regime, which researchers believe offers advantages when responding to a crisis, as this can provide nuclear organizations within an important level of flexibility and autonomy to modify security arrangements at sites to meet changing operational requirements.

They also advocate an increased focus on security culture during a crisis, given the rapid changes operations and the uncertainty this generates within a workforce. With the rapid move to home working precipitated by the COVID-19 pandemic, there was therefore a need to raise awareness of potential security risks in relation to remote information management and digital communications, while also maintaining staff morale through developing new approaches to protect the wellbeing of staff.

Professor Christopher Hobbs, Director of King's Institute for Applied Security Studies (KIASS) and one of the authors of the study says that "this research, provides new insights into how nuclear security has been implemented at the operational level, following the on-set of COVID-19. It is clear that the pandemic has both presented challenges to the delivery of [nuclear security](#) and opportunities for organizations to advance a range of alternative security solutions. Here it is essential that innovation is balanced with pragmatism and the consideration of broader risks."

More information: Reprot: [www.kcl.ac.uk/csss/assets/less ... ponse-to-covid19.pdf](http://www.kcl.ac.uk/csss/assets/less...ponse-to-covid19.pdf)

Provided by King's College London

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